expected transmission frequency indicates that a transmission attempt can be made, the master unit proceeds to transmit to the slave unit at an appropriate packet size,

(c) the master unit tries to choose another active slave unit, if any, for transmission if the link state history counter for the scheduled slave forbids transmission,

(d) the master unit records the loss and gain of service by the slave units when transmission to slave units takes place in an order different from [the regular] a predetermined scheduling order, and

(e) if the link state history counter values of all active slave units are above a threshold $T_{TRANSMIT}$, the master unit chooses a slave unit whose link state history counter has the lowest value, and decides on a packet size of one.

Claim 14 (once amended). A frequency hopping time division duplex master-slave indoor wireless communication system as recited in claim 12 [comprising a master unit and a plurality of slave units,] wherein the master unit maintains an expected state of wireless links with reference to interference by using a table of counters whose values indicate goodness of links.

REMARKS

Claims 1, 3, 5, 8, and 14 have been amended. Claims 4 and 13 have been canceled without prejudice or disclaimer. The application now includes claims 1-3, 5-12, and 14.

The applicant thanks the Examiner for the indication that claims 9-11 are allowed. In addition, the applicant notes with appreciation that claims 6-8 were identified as being drawn to allowable subject matter. By this amendment, each of claims 1-3, 5-12, and 14 should now be allowed.

Claims 3, 4 and 8 were rejected as being indefinite under 35 U.S.C. 112, second paragraph. With respect to claim 3, the applicant notes that claim 1 has been amended to refer to a master unit instead of a base station. Claim 4 has been canceled, thereby making the rejection moot. With respect to claim 8, the term "a predetermined scheduling order" is now used.

Claims 1-4 and 12 were rejected as being anticipated by U.S. Patent 5,425,031 to Otsuka. The rejection is traversed in view of the amendment above.

A general distinction between Otsuka et al. and the present invention is that Otsuka's teaching is in the area of time division multiplexing based systems while the proposed invention is applicable to frequency division multiplexing based systems. More specifically, the "second frequency selection unit" in the claimed invention finds the frequency corresponding to a future time slot. By contrast, the "second switch circuit" of Otsuka is a means for time-division multiplexing several audio coded signals (see column 4, at lines 20-23). The functionality of Otsuka's second switch circuit does not include the functionality of the claimed second frequency selection unit and, accordingly, claim 1 has been revised to highlight the difference. Claim 12 was not amended since, as originally filed, it captures this difference with Otsuka. In view of this, claims 1-3 and 12 are not anticipated by Otsuka.

Claims 5, 13 and 14 were rejected as being anticipated by U.S. Patent 6,256,356 to Suzuki. This rejection is traversed.

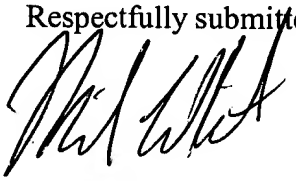
Claim 13 has now been canceled. Claim 14 now depends from claim 12. Claim 14 would not be obvious or anticipated by Otsuka for the reasons outlined above. In addition, Suzuki does not possess the features discussed above, thus claim 14 would not be anticipated by Suzuki.

The link state counters in claim 5 represent the current estimate of goodness of different frequency bands from the perspective of each mobile station. The term "state" in Suzuki (column 10, lines 30-40) corresponds to the mapping between the logical channel numbers and the band slot numbers assigned to them for a given time slot. This definition is inherently different from that in claim 5, and claim 5 has been

rephrased to highlight the difference. As such, claim 5 is not anticipated by Suzuki.

In view of the above, reconsideration and allowance of claims 1-3, 5-12, and 14 at an early date is requested.

Respectfully submitted,



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APPENDIX

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1. A frequency hopping time division duplex indoor wireless communication system comprising:

a master unit having a processor and a first frequency selection unit for finding a current frequency on which to transmit and receive during a current time slot and at least a second frequency selection unit interfaced with said processor to look ahead at frequencies that are to be used in future time slots; and

a plurality of mobile stations communicating with said master unit.

3. The communication system as recited in claim 1, wherein the processor in the master unit interfaced to the second frequency selection unit cooperate such that a frequency corresponding to a future time slot is obtained by the processor by providing binary information about a pico-cell related address bits and clock bits corresponding to the time slot.

5. A frequency hopping indoor wireless communication system comprising:

a master unit and a plurality of slave units;

said master unit having a plurality of link state counters $C(i, j)$, wherein the condition of wireless links between the master unit and a slave unit are recorded in link state counters provided one for each frequency of communication f_i between the master and the slave "i".

8. A frequency hopping time division duplex master-slave indoor wireless communication system comprising:

a master unit having a processor and a first frequency selection unit for finding a current frequency on which to transmit and receive during a current time slot and at

least a second frequency selection unit interfaced with said processor to select frequencies to be used in future time slots; and

a plurality of slave units communicating with said master unit, said master unit having a plurality of link state history counters C (i,j), wherein the link state counters are provided one for each frequency of communication f_i between the master and the slave "i", wherein

(a) before transmission to a slave unit, the master unit obtains the frequencies corresponding to time slots which will be encountered in the immediate future,

(b) if the link state history counter for a scheduled slave unit at an expected transmission frequency indicates that a transmission attempt can be made, the master unit proceeds to transmit to the slave unit at an appropriate packet size,

(c) the master unit tries to choose another active slave unit, if any, for transmission if the link state history counter for the scheduled slave forbids transmission,

(d) the master unit records the loss and gain of service by the slave units when transmission to slave units takes place in an order different from a predetermined scheduling order, and

(e) if the link state history counter values of all active slave units are above a threshold $T_{TRANSMIT}$, the master unit chooses a slave unit whose link state history counter has the lowest value, and decides on a packet size of one.

14. A frequency hopping time division duplex master-slave indoor wireless communication system as recited in claim 12 wherein the master unit maintains an expected state of wireless links with reference to interference by using a table of counters whose values indicate goodness of links.